Exploring Aeronautics			
1999 Science			
Core Curriculum			
New York Science			
Grades 5-8			
Activity/Lesson	**State**	**Standards**	
Airplane Control(209-256)	NY	SCI.5-8.4.P.16	determine the speed and acceleration of a moving object
Tools of Aeronautics(257-326)	NY	SCI.5-8.4.P.9	measure weather variables such as wind speed and direction, relative humidity, barometric pressure, etc.
The Tools of Aeronautics	NY	SCI.5-8.4.P.9	measure weather variables such as wind speed and direction, relative humidity, barometric pressure, etc.
Science of Flight	NY	SCI.5-8.4.P.9	measure weather variables such as wind speed and direction, relative humidity, barometric pressure, etc.
Science of Flight	NY	SCI.5-8.4.P.16	determine the speed and acceleration of a moving object

Exploring Aeronautics			
1999 Science			
Core Curriculum			
New York Science			
Grades 5-8			
Activity/Lesson	**State**	**Standards**	

Fundamentals of Aeronautics (145-176)	NY	SCI.5-8.1.S2.2b	design scientific investigations (e.g., observing, describing, and comparing; collecting samples; seeking more information, conducting a controlled experiment; discovering new objects or phenomena; making models)
Fundamentals of Aeronautics (145-176)	NY	SCI.5-8.2.1.4c	use the collected data to communicate a scientific concept
Fundamentals of Aeronautics (145-176)	NY	SCI.5-8.6.6.2	Use graphs of information for a decision-making problem to determine the optimum solution.
Fundamentals of Aeronautics (145-176)	NY	SCI.5-8.4.P5.1b	The motion of an object can be described by its position, direction of motion, and speed.
Wings(177-208)	NY	SCI.5-8.4.P5.1b	The motion of an object can be described by its position, direction of motion, and speed.
Airplane Control(209-256)	NY	SCI.5-8.7.1.3	Design solutions to real-world problems of general social interest related to home, school, or community using scientific experimentation to inform the solution and applying mathematical concepts and reasoning to assist in developing a solution.
Airplane Control(209-256)	NY	SCI.5-8.4.P5.1b	The motion of an object can be described by its position, direction of motion, and speed.

Airplane Control(209-256)	NY	SCI.5-8.4.P5.1c	An object's motion is the result of the combined effect of all forces acting on the object. A moving object that is not subjected to a force will continue to move at a constant speed in a straight line. An object at rest will remain at rest.
Airplane Control(209-256)	NY	SCI.5-8.4.P5.1d	Force is directly related to an object's mass and acceleration. The greater the force, the greater the change in motion.
Airplane Control(209-256)	NY	SCI.5-8.4.P5.2f	Machines can change the direction or amount of force, or the distance or speed of force required to do work.
How an Airplane Flies	NY	SCI.5-8.4.P5.1c	An object's motion is the result of the combined effect of all forces acting on the object. A moving object that is not subjected to a force will continue to move at a constant speed in a straight line. An object at rest will remain at rest.
How an Airplane Flies	NY	SCI.5-8.4.P5.2b	Electric currents and magnets can exert a force on each other.
The Tools of Aeronautics	NY	SCI.5-8.1.S3.1a	organize results, using appropriate graphs, diagrams, data tables, and other models to show relationships
The Tools of Aeronautics	NY	SCI.5-8.7.1.3	Design solutions to real-world problems of general social interest related to home, school, or community using scientific experimentation to inform the solution and applying mathematical concepts and reasoning to assist in developing a solution.
The Activity Center	NY	SCI.5-8.1.S2.2b	design scientific investigations (e.g., observing, describing, and comparing; collecting samples; seeking more information, conducting a controlled experiment; discovering new objects or phenomena; making models)
The Activity Center	NY	SCI.5-8.7.1.3	Design solutions to real-world problems of general social interest related to home, school, or community using scientific experimentation to inform the solution and applying mathematical concepts and reasoning to assist in developing a solution.
The Activity Center	NY	SCI.5-8.4.P5.1d	Force is directly related to an object's mass and acceleration. The greater the force, the greater the change in motion.
The Activity Center	NY	SCI.5-8.4.P5.2f	Machines can change the direction or amount of force, or the distance or speed of force required to do work.
Science of Flight	NY	SCI.5-8.6.2.1	Select an appropriate model to begin the search for answers or solutions to a question or problem.

Science of Flight	NY	SCI.5-8.7.1.4	Describe and explain phenomena by designing and conducting investigations involving systematic observations, accurate measurements, and the identification and control of variables; by inquiring into relevant mathematical ideas; and by using mathematical and technological tools and procedures to assist in the investigation.
Science of Flight	NY	SCI.5-8.7.2.1b	Gathering and Processing Information: Accessing information from printed media, electronic data bases, and community resources and using the information to develop a definition of the problem and to research possible solutions.
Science of Flight	NY	SCI.5-8.7.2.1c	Generating and Analyzing Ideas: Developing ideas for proposed solutions, investigating ideas, collecting data, and showing relationships and patterns in the data.
Science of Flight	NY	SCI.5-8.7.2.1e	Realizing Ideas: Constructing components or models, arriving at a solution, and evaluating the result.
Science of Flight	NY	SCI.5-8.4.P2.1b	As altitude increases, air pressure decreases.
Science of Flight	NY	SCI.5-8.4.P5.1b	The motion of an object can be described by its position, direction of motion, and speed.
Science of Flight	NY	SCI.5-8.4.P5.1c	An object's motion is the result of the combined effect of all forces acting on the object. A moving object that is not subjected to a force will continue to move at a constant speed in a straight line. An object at rest will remain at rest.
Integrating with Aeronautics	NY	SCI.5-8.7.1.4	Describe and explain phenomena by designing and conducting investigations involving systematic observations, accurate measurements, and the identification and control of variables; by inquiring into relevant mathematical ideas; and by using mathematical and technological tools and procedures to assist in the investigation.
Integrating with Aeronautics	NY	SCI.5-8.4.P5.1c	An object's motion is the result of the combined effect of all forces acting on the object. A moving object that is not subjected to a force will continue to move at a constant speed in a straight line. An object at rest will remain at rest.
Integrating with Aeronautics	NY	SCI.5-8.4.P5.1d	Force is directly related to an object's mass and acceleration. The greater the force, the greater the change in motion.

Intro to Aeronautics (109-123)	NY	SCI.5-8.7.2.1b	Gathering and Processing Information: Accessing information from printed media, electronic data bases, and community resources and using the information to develop a definition of the problem and to research possible solutions.
Intro to Aeronautics (109-123)	NY	SCI.5-8.7.2.1c	Generating and Analyzing Ideas: Developing ideas for proposed solutions, investigating ideas, collecting data, and showing relationships and patterns in the data.
Scientific Method(124-144)	NY	SCI.5-8.2.1.2	Use spreadsheets and database software to collect, process, display, and analyze information. Students access needed information from electronic databases and on-line telecommunication services.
Scientific Method(124-144)	NY	SCI.5-8.2.1.3	Systematically obtain accurate and relevant information pertaining to a particular topic from a range of sources, including local and national media, libraries, museums, governmental agencies, industries, and individuals.
Scientific Method(124-144)	NY	SCI.5-8.4.P5.1c	An object's motion is the result of the combined effect of all forces acting on the object. A moving object that is not subjected to a force will continue to move at a constant speed in a straight line. An object at rest will remain at rest.
Scientific Method(124-144)	NY	SCI.5-8.4.P5.1d	Force is directly related to an object's mass and acceleration. The greater the force, the greater the change in motion.
Scientific Method(124-144)	NY	SCI.5-8.4.P5.1e	For every action there is an equal and opposite reaction.